



# **STIC Search Report**

## **Biotech-Chem Library**

**STIC Database Tracking Number: 148592**

**TO: Vanessa L Ford**  
**Location: 3b25 / 3c18**  
**Monday, March 28, 2005**  
**Art Unit: 1645**  
**Phone: 571-272-0857**  
**Serial Number: 10 / 017168**

**From: Jan Delaval**  
**Location: Biotech-Chem Library**  
**Remsen 1a51**  
**Phone: 571-272-22504**  
  
**jan.delaval@uspto.gov**

### **Search Notes**

From: Chan, Christina  
Sent: Wednesday, March 23, 2005 8:02 AM  
To: Ford, Vanessa; STIC-Biotech/ChemLib  
Subject: RE: In re: 10/017,168 Sequence search

Please rush. Thanks Chris

Chris Chan

TC 1600 New Hire Training Coordinator and SPE 1644  
(571)-272-0841  
Remsen, 3E89

RECEIVED  
MAR 23 2005  
(STIC)

-----Original Message-----

From: Ford, Vanessa  
Sent: Tuesday, March 22, 2005 7:04 PM  
To: Chan, Christina  
Subject: In re: 10/017,168 Sequence search

Please search SEQ ID NOS: 1, 3,5,19, 21, 23 and 25. Please include interference searches. Please rush.  
Vanessa L. Ford  
Biotechnology Patent Examiner  
Office: REM 3B25  
Mailbox: REM 3C18  
Phone: 571.272.0857  
Art unit:1645

\*\*\*\*\*

STAFF USE ONLY

Searcher: Chan  
Searcher Phone: 2-2504  
Date Searcher Picked up: 3/23/05  
Date Completed: 3/24/05  
Searcher Prep/Rev. Time: 20  
Online Time: 25

\*\*\*\*\*

Type of Search

NA#: ✓ AA#:         
Interference:        SPDI:         
S/L:        Oligomer:         
Encode/Transl:         
Structure#:        Text:         
Inventor:        Litigation:       

\*\*\*\*\*

Vendors and cost where applicable

STN:         
DIALOG:         
QUESTEL/ORBIT:         
LEXIS/NEXIS:         
SEQUENCE SYSTEM: ✓  
WWW/Internet:         
Other(Specify):







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OM nucleic - nucleic search, using SW model

Run on: March 23, 2005, 10:23:13 ; Search time 394.326 Seconds  
(without alignments)  
10493.597 Million cell updates/sec

Title: US-10-017-168-3

Perfect score: 639  
Sequence: 1 atgttcgtcgscgacgcacat.....atcagttcggaaacctga 639

Scoring table: IDENTITY NUC  
Gapop 10-0, Gapext 1.0

Searched: 4390206 seqs, 2959870667 residues

Total number of hits satisfying chosen parameters: 8780412

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%  
Listing first 45 summaries

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3: geneeqn20008:\*  
4: geneeqn20018:\*  
5: geneeqn20028:\*  
6: geneeqn20038:\*  
7: geneeqn20048:\*  
8: geneeqn20058:\*  
9: geneeqn20068:\*  
10: geneeqn20078:\*  
11: geneeqn20088:\*  
12: geneeqn20098:\*  
13: geneeqn20108:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	699	100.0	699	4 AAC84648	AAC84648 T. pallid
2	626.4	89.6	939	4 AAC84649	AAC84649 T. pallid
3	621.6	88.9	2945	4 AAC84647	AAC84647 T. pallid
4	537.8	76.9	9410	2 AAX20603	AAX20603 Polynucle
5	82.6	11.8	149158	12 ADP74211	ADP74211 Equine he
6	82.6	11.8	149158	12 ADP74211	ADP74211 Equine he
7	82.6	11.8	149158	12 ADP74211	ADP74211 Equine he
8	82.6	11.8	149158	12 ADP74211	ADP74211 Equine he
9	82.6	11.8	150071	12 ADP74216	ADP74216 Equine he
10	82.6	11.8	150071	12 ADP74216	ADP74216 Equine he
11	82.6	11.8	150223	12 ADP74201	ADP74201 Equine he
12	82.6	11.8	150223	12 ADP74201	ADP74201 Equine he
13	80.6	11.5	110000	8 ABX16390_2	Continuation (3 of
14	78.2	11.2	628	12 ACH89664	ACH89664 Human gen
15	77.6	11.1	3127	12 ADN12154	ADN12154 Kaposis s
16	77.4	11.1	114793	4 AAD08215	ADN12155 Herpesvir
17	77.2	11.0	3012	12 ADN12155	ADN12155 Herpesvir
18	75.8	10.8	7720	3 AAX53800	AAX53800 Genomic D
19	75.8	10.8	8298	4 AAK72613	AAK72613 Human Imm
20	75	10.7	16442	2 AAX83006	AAK83006 Partial m

21	73.4	10.5	795	2 AAV55830	AAV55830 FlGA inee
22	73.4	10.5	799	2 AAV55831	AAV55831 Nucleotid
23	73.4	10.5	1925	2 AAX90924	AAX90924 Epotein B
24	73.4	10.5	1926	3 AAX50254	AAX50254 Epotein B
25	73.4	10.5	1926	4 AAX82902	AAX82902 EBV tethe
26	73.4	10.5	1926	10 AAX85580	ADK65580 Human her
27	73.4	10.5	2580	3 AAX5454	AAV5454 Nucleotid
28	73.4	10.5	2580	6 AAX164275	AAI64275 Epotein-B
29	73.4	10.5	5452	2 AAX09923	AAX09923 Anti-sens
30	73.4	10.5	8705	2 AAX23778	AAZ23778 Vector DS
31	73.4	10.5	8705	12 ADM10659	ADM10659 Expressio
32	73.4	10.5	9482	12 ADP64415	ADP64415 Vector PC
33	73.4	10.5	9600	2 AAX21683	AAV21683 Vector pl
34	73.4	10.5	10285	6 AAX51731	ABE71027 PCBP-Xa-P
35	73.4	10.5	10285	6 AAX566453	ABE66453 Plasmid p
36	73.4	10.5	10330	12 ADL67154	ADL67154 Plasmid p
37	73.4	10.5	10380	2 AAX22248	AAZ22248 Nucleotid
38	73.4	10.5	10477	12 ADL67152	ADL67152 Plasmid p
39	73.4	10.5	10516	12 ADL67150	ADL67150 Plasmid p
40	73.4	10.5	10561	12 ADL67148	ADL67148 Plasmid p
41	73.4	10.5	10596	2 AAX051731	AAZ51731 Plasmid p
42	73.4	10.5	10596	2 AAX15650	AAZ15650 Nucleotid
43	73.4	10.5	10596	2 AAX40348	AAZ40348 Plasmid p
44	73.4	10.5	10615	12 ADL67175	ADL67175 Plasmid p
45	73.4	10.5	10774	12 ADL67153	ADL67153 Plasmid p

## ALIGNMENTS

RESULT 1	AAC84648	standard; DNA; 699 BP.
ID	AAC84648	
XX	XX	
AC	AAC84648:	
XX	XX	
DT	11-SEP-2003 (revised)	
DT	20-APR-2001 (first entry)	
XX	XX	
DE	T. pallidum (CDC-2) acidic repeat protein (arp) encoding DNA.	
XX	XX	
KM	Treponema pallidum; acidic repeat protein; arp; immunogenic; syphilis;	
KW	yaws; bejel; ds.	
XX	XX	
OS	Treponema pallidum; asp. pertenue.	
XX	XX	
FT	Key	Location/Qualifiers
FT	CDS	1..699
XX	XX	/tag= a
PN	XX	
PD	XX	MO200077486-A2.
XX	XX	21-DEC-2000.
XX	XX	
PF	XX	14-JUN-2000; 2000MO-US016425.
XX	XX	
PR	XX	14-JUN-1999; 99US-0138981P.
XX	XX	
PA	XX	(USSH) US DEPT HEALTH & HUMAN SERVICES.
PI	XX	
PI	XX	Liu H, Steiner B, Rhodes B;
XX	XX	
DR	XX	WPI; 2001-080711/09.
DR	XX	P-FSD; AAB48317.
XX	XX	
PT	XX	Detecting Treponema pallidum in blood, saliva, etc., by detecting
PT	XX	formation of a complex between immunogenic peptides of acidic repeat
XX	XX	protein of the bacterium and an antibody present in the biological
XX	XX	sample.
PS	XX	Claim 19; Fig 7; 73pp; English.
XX	XX	
CC	XX	The invention relates to a method of detecting presence of Treponema

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OM nucleic - nucleic search, using sw model

Run on: March 23, 2005, 10:23:14 ; Search time 2482.36 Seconds  
(without alignments)  
10718.395 Million cell updates/sec

Title: US-10-017-168-3

Perfect score: 699

Sequence: 1 atcgttgcgcagtcagatc.....atcagttcgaaccctga 699

Scoring table: IDENTITY NUC  
Gapop 10.0, Gapext 1.0

Searched: 34239544 seqs, 1903234700 residues

Total number of hits satisfying chosen parameters: 68479088

Minimum DB seq length: 0  
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%  
Listing first 45 summaries

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1: gb\_est1:  
2: gb\_est2:  
3: gb\_hic:  
4: gb\_est3:  
5: gb\_est4:  
6: gb\_est5:  
7: gb\_est6:  
8: gb\_gsa1:  
9: gb\_gsa2:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
C 1	89.6	12.8	365	9	AL160994 Leishman
C 2	85.8	12.3	293	8	AZ334000 IM0063P17
C 3	83	11.9	776	9	AG561854 Mus muscu
C 4	81.4	11.6	709	9	AG351718 Mus muscu
C 5	77	11.0	697	6	BY752869 BY752869
C 6	76.6	11.0	514	8	BZ089457 BZ089457
C 7	76.6	11.0	783	9	AG573654 Mus muscu
C 8	75.4	10.8	820	9	CL836578 OR CBA006
C 9	73.4	10.5	482	7	CV254879 MS02411.B
C 10	73.2	10.5	752	9	AG562801 Mus muscu
C 11	72.2	10.4	650	8	AZ337339 IM0068B03
C 12	72.2	10.3	384	9	AL097791 IM0068B03
C 13	71.8	10.3	523	8	AZ333375 IM0141E03
C 14	71.8	10.3	979	6	CD328191 AGSNCOURT
C 15	71.4	10.2	419	4	BG273097 na199f06.
C 16	70.8	10.1	1945	8	CC251395 CH261-157
C 17	70.6	10.1	275	7	CO546011 LYSR7038
C 18	70.4	10.1	733	8	CC641774 OGBUJ5TH
C 19	70.4	10.1	852	8	BZ801844 PUGAG07TB
C 20	70.4	10.1	945	9	CG344918 OGBH42TH
C 21	70.4	10.1	1099	9	CL509275 SA11.811
C 22	70.2	10.0	617	9	CE019059 LIGT-988-
C 23	70.2	10.0	696	7	CK138139 VMJ35 V1
C 24	70	10.0	834	9	AG555306 Mus muscu

C 25	70	10.0	1197	9	AG346705 Mus muscu
C 26	69.4	9.9	427	7	CK286024 EST148746
C 27	69.4	9.9	1147	8	BZ051981 ju156f09.
C 28	69.2	9.9	699	6	CD493768 CDA07-A05
C 29	69.2	9.9	1271	9	CL492192 SATI.564
C 30	69	9.9	430	5	BM900946 rc43C10.Y
C 31	69	9.9	986	9	AG390365 Mus muscu
C 32	68.6	9.8	494	7	CF609053 GERM001_0
C 33	68.6	9.8	516	7	CF607575 GERM001_0
C 34	68.6	9.8	583	5	B0847872 OGA5016.Y
C 35	68.6	9.8	1344	9	AG435591 Mus muscu
C 36	68.4	9.8	501	7	CV094178 FAMU_USDA
C 37	68.4	9.8	520	7	CV096855 FAMU_USDA
C 38	68.4	9.8	552	7	CM605345 USDA_FP_1
C 39	68.4	9.8	592	7	CV092833 FAMU_USDA
C 40	68.4	9.8	609	7	CV099895 FAMU_USDA
C 41	68.4	9.8	624	7	CV092434 FAMU_USDA
C 42	68.4	9.8	647	7	CV096641 FAMU_USDA
C 43	68.4	9.8	651	7	CV093263 FAMU_USDA
C 44	68.4	9.8	651	7	CV097413 FAMU_USDA
C 45	68.4	9.8	688	7	CV098193 FAMU_USDA

## ALIGNMENTS

RESULT 1  
L2644X/C  
DEFINITION  
L2644X 365 bp DNA linear GSS 16-MAR-2000  
Leishmania major Friedlin cosmid L2644 t3Hyg end-sequence, similar to U40394 U40394 Kaposi's sarcoma-associated herpes-like. N=755, Prob=1.8e-54; TR:P93797 PHEROPHORIN-S PPECURSOR. [0] +3. N=318, Prob=7.2e-37, genomic survey sequence.

ACCESSION  
AL160994.1 GI:7258621

VERSION  
GSS

KEYWORDS  
Leishmania major

SOURCE  
Leishmania major

ORGANISM  
Eukaryota; Eukaryota; Kinetoplastida; Trypanosomatidae; Leishmania.

REFERENCE  
1 (bases 1 to 365)

AUTHORS  
Ivens,A.C., Lewis,S.M., Bagherzadeh,A., Zhang,L., Chan,H.M. and Smith,D.F.

TITLE  
A physical map of the Leishmania major Friedlin genome

JOURNAL  
Genome Res. 8 (2), 135-145 (1998)

MEDLINE  
98146435

PUBMED  
9477341

REFERENCE  
2 (bases 1 to 67)

AUTHORS  
Taylor,R.G., Huckle,E.E.J., Ivens,A.C., Rajandream,M.A. and Barrett,B.G.

TITLE  
Direct Submissio

JOURNAL  
Submitted (14-MAR-2000) Leishmania major Friedlin genome sequencing project, Sanger Centre, The Wellcome Trust Genome Campus, Hinxton, Cambridge CB10 1SA, E-mail: barrett@sanger.ac.uk and

alicates@sanger.ac.uk

see http://www.ebi.ac.uk/parasites/leish.html

Details of Leishmania sequencing at the Sanger Centre are available

at http://www.sanger.ac.uk/Projects/L\_major/

The t3Hyg t3Hyg primer sequence can be obtained from acc. no.

US9231.

US9231.

US9231.

US9231.

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OM nucleic - nucleic search, using SW model

Run on: March 23, 2005, 10:23:13 ; Search time 3122.69 Seconds

(without alignments)  
10846.472 Million cell updates/sec

Title: US-10-017-168-3

Perfect score: 699

Sequence: 1 atgttcgtgcgcagctgacat.....atcagttcggaaacctga 699

Scoring table: IDENTITY NUC

Gapop 10.0, Gapext 1.0

Searched: 4708233 seqs, 24227607955 residues

Total number of hits satisfying chosen parameters: 9416466

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

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2: gb\_hcg: \*  
3: gb\_in: \*  
4: gb\_cm: \*  
5: gb\_ov: \*  
6: gb\_pat: \*  
7: gb\_ph: \*  
8: gb\_pl: \*  
9: gb\_pr: \*  
10: gb\_ro: \*  
11: gb\_sbs: \*  
12: gb\_ay: \*  
13: gb\_un: \*  
14: gb\_vt: \*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	699	100.0	699	6	AX068034 Sequence
2	693.4	99.2	1047	1	AF342806 Treponema
3	626.4	89.6	939	6	AX068036 Sequence
4	626.4	88.9	1287	1	AF342807 Treponema
5	621.6	88.9	1647	1	AF411124 Treponema
6	621.6	88.9	2945	6	AX068032 Sequence
7	621.6	88.9	2945	1	AF015824 Treponema
8	608.8	87.1	14268	1	AF001220 Treponema
9	601.4	86.0	1182	1	AF411126 Treponema
10	89.4	12.8	21580	2	AC111089 Mus muscu
11	88.4	12.6	165592	10	AC122020 Mus muscu
12	87.8	12.6	219771	2	BX005376 Dario rer
13	87.8	12.6	253504	10	AC102602 Mus muscu
14	87.8	12.6	266556	2	AC136868 Rattus no
15	87.6	12.5	239392	2	AC105853 Rattus no
16	87.2	12.5	269572	2	AC108552 Rattus no
17	86.8	12.4	110000	10	AB016753 Contaminant (3 of
18	86.8	12.4	152435	10	AC121566 Mus muscu
19	86.2	12.3	125681	10	AC122889 Mus muscu

C 20	86.2	12.3	161905	10	AL929034	AL929034 Mouse DNA
C 21	86.2	12.3	178757	10	AC122509	AC122509 Mus muscu
C 22	86.2	12.3	196236	10	AC108780	AC108780 Mus muscu
C 23	86.2	12.3	197411	10	AC135961	AC135961 Mus muscu
C 24	86.2	12.3	203086	10	AC099948	AC099948 Mus muscu
C 25	86.2	12.3	215769	10	AC100209	AC100209 Mus muscu
C 26	85.6	12.2	192371	10	AC123857	AC123857 Mus muscu
C 27	85.6	12.2	199459	10	AC125192	AC125192 Mus muscu
C 28	85.2	12.2	143913	2	AC124827	AC124827 Mus muscu
C 29	84.6	12.1	120487	10	AC103637	AC103637 Mus muscu
C 30	84.6	12.1	163882	10	AC133904	AC133904 Mus muscu
C 31	84.6	12.1	171593	10	AC122052	AC122052 Mus muscu
C 32	84.6	12.1	179063	10	AC145590	AC145590 Mus muscu
C 33	84.6	12.1	191753	10	AC152535	AC152535 Mus muscu
C 34	84.6	12.1	199854	10	AL591208	AL591208 Mouse DNA
C 35	84.6	12.1	210595	2	AC116862	AC116862 Mus muscu
C 36	84.6	12.1	215620	10	AL928551	AL928551 Mouse DNA
C 37	84.6	12.1	217353	10	AC149611	AC149611 Mus muscu
C 38	84.6	12.1	229190	10	AC127348	AC127348 Mus muscu
C 39	84.6	12.1	234888	2	AC102097	AC102097 Mus muscu
C 40	84.6	12.1	260625	2	AC096018	AC096018 Rattus no
C 41	84.6	12.1	289751	10	AC091458	AC091458 Mus muscu
C 42	84	12.0	179886	2	AC140072	AC140072 Mus muscu
C 43	84	12.0	182272	10	AC122232	AC122232 Mus muscu
C 44	84	12.0	208880	10	AC123837	AC123837 Mus muscu
C 45	84	12.0	219568	10	AL844840	AL844840 Mouse DNA

#### ALIGNMENTS

RESULT 1  
LOCUS AX068034 699 bp DNA linear PAT 19-JAN-2001  
DEFINITION Sequence 3 from Patent WO0077486.  
ACCESSION AX068034  
VERSION AX068034.1 GI:12329842  
KEYWORDS  
SOURCE  
ORGANISM  
Treponema pallidum  
Treponema pallidum  
Bacteria; Spirochaetes; Spirochaetales; Spirochaetaceae; Treponema.

REFERENCE  
AUTHORS Liu, H., Steiner, B. and Rhodes, B.  
TITLE Compositions and methods for detecting Treponema pallidum  
JOURNAL Patent: WO 0077486-A 3 21-DEC-2000;  
THE GOVERNMENT OF THE UNITED STATES OF AMERICA (US)  
FEATURES  
SOURCE  
1. 699  
/organism="Treponema pallidum"  
/mol\_type="unassigned DNA"  
/db\_xref="taxon:160"  
1. 699  
/note="unnamed protein product; Subspecies: pertenue (CDC-2 strain)"  
/codon\_start=1  
/transl\_table=1  
/protein\_id="CAC24647.1"  
/db\_xref="GI:12329843"  
translation="MFRSDMFKRRAVEISNLERNAKAQAVVIGHAGIPLIVSLAP  
AAAKGIGIYQAVRVKRTDGLTGVKGSQTSQDGLSLAPSPVPRPORDPLSPP  
AGHTVEYRDVTFDPRVLSPLSRVEEDVPKVEPASPBERGGEREVAQPKVEPAS  
EREGREVEDVPKVEPASPBERGGEREVEDVPKVEPASPBERGGEREVAQPKVEPAS  
HVSNSAPNQFRP"

#### ORIGIN

Query Match 100.0%; Score 699; DB 6; Length 699;  
Best local similarity 100.0%; Pred. No. 2.5e-145; Indels 0; Gaps 0;  
Matches 699; Conservative 0; Mismatches 0;

1 ATGTTGTGCGCAGTGCATGTTCCCAAAACACTGCTTGAATTGAACACTAGAA 60  
1 ATGTTGTGCGCAGTGCATGTTCCCAAAACACTGCTTGAATTGAACACTAGAA 60



GenCore version 5.1.6  
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OM nucleic - nucleic search, using SW model

Run on: March 23, 2005, 10:23:13 ; Search time 4194.86 Seconds  
(without alignments)  
10846.472 Million cell updates/sec

Title: US-10-017-168-5

Perfect score: 939  
Sequence: 1 atgcttcgcgcagcagtcacat.....atcagcttcggaacacctga 939

Scoring table: IDENTITY NUC  
Gapop 10.0, Gapext 1.0

Searched: 4708233 seqs, 24227607955 residues

Total number of hits satisfying chosen parameters: 9416466

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Listing first 45 summaries

Database :

GenEmbl.\*  
1: gb\_ba.\*  
2: gb\_hcg.\*  
3: gb\_in.\*  
4: gb\_om.\*  
5: gb\_ov.\*  
6: gb\_pat.\*  
7: gb\_ph.\*  
8: gb\_pl.\*  
9: gb\_pr.\*  
10: gb\_ro.\*  
11: gb\_sbs.\*  
12: gb\_by.\*  
13: gb\_un.\*  
14: gb\_vl.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	939	100.0	939	6	AX068036 Sequence
2	939.4	99.4	1287	1	AF342807 Treponema
3	858.4	91.4	1647	1	AF411124 Treponema
4	856.8	91.2	2945	6	AX068032 Sequence
5	856.8	91.2	2945	1	AF015824 Treponema
6	771.4	82.2	14268	1	AE001220 Treponema
7	721.4	76.8	1182	1	AF411126 Treponema
8	626.4	66.7	699	6	AX068034 Sequence
9	626.4	66.7	1047	1	AF342806 Treponema
10	169.4	18.0	211580	2	AC111089 Mus muscu
11	163	17.4	178757	10	AC122509 Mus muscu
12	154.4	16.4	197411	10	AC135961 Mus muscu
13	152.2	16.2	260625	2	AC096018 Rattus no
14	150.2	16.0	318930	2	AC073495 Mus muscu
15	149.6	15.9	216602	10	AC136729 Mus muscu
16	148.6	15.8	163945	2	AC116727 Mus muscu
17	148.6	15.8	217353	10	AC149611 Mus muscu
18	148.6	15.8	229190	10	AC127348 Mus muscu
19	148	15.8	165592	10	AC122020 Mus muscu

20	147.8	15.7	211161	2	AC098271 Rattus no
21	147.6	15.7	152618	10	AC127583 Mus muscu
22	145.8	15.5	197683	10	AC118476 Mus muscu
23	145.4	15.5	200574	10	BX005304 Mouse DNA
24	145.4	15.5	215745	10	AC117585 Mus muscu
25	145.4	15.5	237814	10	AC091464 Mus muscu
26	145	15.4	179206	2	AC124108 Mus muscu
27	144.8	15.4	144093	10	AC109193 Mus muscu
28	144.6	15.4	100000	2	AC120236 Rattus no
29	144.6	15.4	192371	10	AC123857 Mus muscu
30	144.2	15.4	203490	10	AC122851 Mus muscu
31	144	15.3	120487	10	AC103637 Mus muscu
32	144	15.3	171593	10	AC122052 Mus muscu
33	143.8	15.3	182272	10	AC122232 Mus muscu
34	143.8	15.3	191753	10	AC125235 Mus muscu
35	143.2	15.3	194736	10	AC126271 Mus muscu
36	143.2	15.3	205054	10	AC098712 Mus muscu
37	143	15.2	206497	10	AC084389 Mus muscu
38	142.8	15.2	152435	10	AC121566 Mus muscu
39	142.8	15.2	253504	10	AC102602 Mus muscu
40	142.6	15.2	125681	10	AC122889 Mus muscu
41	142.6	15.2	199459	10	AC125192 Mus muscu
42	142.2	15.1	178620	10	AC121865 Mus muscu
43	142.2	15.1	199854	10	AL591208 Mouse DNA
44	142.2	15.1	208880	10	AC123837 Mus muscu
45	142.2	15.1	217522	10	AC117639 Mus muscu

## ALIGNMENTS

RESULT 1  
AX068036 939 bp DNA linear PAT 19-JAN-2001  
LOCUS Sequence 5 from Patent WO0077486.  
DEFINITION AX068036  
ACCESSION AX068036.1 GI:12329844  
VERSION  
KEYWORDS  
SOURCE  
ORGANISM  
Treponema pallidum  
Bacteria; Spirochaetes; Spirochaetales; Spirochaetaceae; Treponema.

REFERENCE  
AUTHORS Liu, H., Steiner, B. and Rhodes, B.  
TITLES Compositions and methods for detecting Treponema pallidum  
JOURNAL Patent: WO 0077486-A 5 21-DEC-2000;  
THE GOVERNMENT OF THE UNITED STATES OF AMERICA (US)  
FEATURES  
location/Qualifiers  
1..939  
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/db\_xref="taxon:160"  
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/db\_xref="GI:12329845"  
/translation="MFRSDMPKXTAVRISNLKRNKAQAVVIGHAGIPGLVSLP  
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ERRGGEREVEDVPKVEPSPASRSEGEREVEDVPKVEPSPASRSEGEREVEDVPKVEP  
ASRSEGEREVEDVPKVEPSPASRSEGEREVEDVPKVEPSPASRSEGEREVEDVPKVEP  
EPASRSEGEREVEDVPKVEPSPASRSEGEREVEDVPKVEPSPASRSEGEREVEDVPKVEP

## CDS

## ORIGIN

Query Match 100.0%; Score 939; DB 6; Length 939;  
Best Local Similarity 100.0%; Pred. No. 9.4e-194; Indels 0; Gaps 0;  
Matches 939; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
Cy 1 ATGTTGTGGCGAGTACATGTTCCCAAAACACTGCTGTGAAATTGCAACTTAGAA 60  
db 1 ATGTTGTGGCGAGTACATGTTCCCAAAACACTGCTGTGAAATTGCAACTTAGAA 60

GenCore version 5.1.6  
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OM nucleic - nucleic search, using sw model

Run on: March 23, 2005, 10:23:13 ; Search time 529.717 Seconds

(without alignments)  
10493.597 Million cell updates/sec

Title: US-10-017-168-5

Perfect score: 939

Sequence: 1 atgcgttcgcgcagtcgacat.....atcagtttcggaacctga 939

Scoring table: IDENTITY NUC

Gapop 10.0, Gapext 1.0

Searched: 4390206 seqs, 2959870667 residues

Total number of hits satisfying chosen parameters: 8780412

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : N\_Geneseq\_16Dec04.\*  
1: geneseq19808.\*  
2: geneseq19908.\*  
3: geneseq20008.\*  
4: geneseq20018.\*  
5: geneseq20028.\*  
6: geneseq20038.\*  
7: geneseq20048.\*  
8: geneseq20058.\*  
9: geneseq20068.\*  
10: geneseq20078.\*  
11: geneseq20088.\*  
12: geneseq20098.\*  
13: geneseq20108.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	939	100.0	939	4 AAC84649	AAC84649 T. pallid
2	856.8	91.2	2945	4 AAC84647	AAC84647 T. pallid
3	637.2	67.9	9410	2 AAX20603	AAX20603 Polynucle
4	626.4	66.7	699	4 AAC84648	AAC84648 T. pallid
5	130	13.8	30191	12 ADQ97654	ADQ97654 Mouse can
6	129.4	13.8	799	2 AAV55831	AAV55831 Nucleoid
7	129.4	13.8	1926	4 AAS50254	AAS50254 Epstein B
8	129.4	13.8	1926	4 AAF82902	AAF82902 EBV tette
9	129.4	13.8	1926	10 ADK5580	ADK5580 Human her
10	129.4	13.8	2580	3 AAA75454	AAA75454 Nucleoid
11	129.4	13.8	5452	6 AAI64275	AAI64275 Epstein-B
12	129.4	13.8	8705	2 AAX90923	AAX90923 Anti-sens
13	129.4	13.8	8705	2 AAZ23778	AAZ23778 Vector ps
14	129.4	13.8	9482	12 ADM10659	ADM10659 Expressio
15	129.4	13.8	9600	2 AAV21683	AAV21683 Vector pc
16	129.4	13.8	10285	6 ABS71027	ABS71027 pCBP-Xa-F
17	129.4	13.8	10285	6 ABS66453	ABS66453 Plasmid p
18	129.4	13.8	10330	12 ADL67154	ADL67154 Plasmid p
19	129.4	13.8	10380	2 AAZ22248	AAZ22248 Nucleoid

C 21	129.4	13.8	10477	12 ADL67152	ADL67152 Plasmid p
C 22	129.4	13.8	10516	12 ADL67150	ADL67150 Plasmid p
C 23	129.4	13.8	10561	12 ADL67148	ADL67148 Plasmid p
C 24	129.4	13.8	10596	2 AAO51731	AAO51731 Plasmid p
C 25	129.4	13.8	10596	2 AAX15650	AAX15650 Nucleoid
C 26	129.4	13.8	10596	2 AAT40348	AAT40348 Plasmid p
C 27	129.4	13.8	10615	12 ADL67175	ADL67175 Plasmid p
C 28	129.4	13.8	10774	12 ADL67153	ADL67153 Plasmid p
C 29	129.4	13.8	10921	12 ADL67151	ADL67151 Plasmid p
C 30	129.4	13.8	10961	12 ADL67149	ADL67149 Plasmid p
C 31	129.4	13.8	11061	12 ADL67147	ADL67147 Plasmid p
C 32	129.4	13.8	11059	12 ADL67176	ADL67176 Plasmid p
C 33	129.4	13.8	11693	13 ADL12379	ADL12379 Vector pc
C 34	129.4	13.8	11924	12 ADL007395	ADL007395 Modified
C 35	129.4	13.8	12242	12 ADL007394	ADL007394 Modified
C 36	129.4	13.8	16080	3 AAS59553	AAS59553 DNA clone
C 37	129.4	13.8	17753	12 ADL71910	ADL71910 Expressio
C 38	129.4	13.8	17281	12 ADL12161	ADL12161 Epstein-B
C 39	129.2	13.8	1925	2 AAX90924	AAX90924 Human gen
C 40	128.4	13.7	795	2 AAV55830	AAV55830 FlGA inee
C 41	125.2	13.3	628	12 ACH89664	ACH89664 Human gen
C 42	120.8	12.9	26214	12 ADQ97246	ADQ97246 Mouse can
C 43	118.8	12.7	12733	6 ABK98631	ABK98631 Vector pc
C 44	118.8	12.7	12733	9 ACD13882	ACD13882 L. lactis
C 45	118.8	12.7	12739	6 ABK98592	ABK98592 Vector pc

## ALIGNMENTS

RESULT 1	AAC84649	standard; DNA; 939 BP.
ID	AAC84649;	
AC		
XX		
XX		
XX		
DT	11-SEP-2003	(revised)
DT	20-APR-2001	(first entry)
XX		
DE	T. pallidum (Bosnia)	acidic repeat protein (arp) encoding DNA.
XX		
KW	Treponema pallidum;	acidic repeat protein; arp; immunogenic; syphilis;
KW	yaws; bejel; ds.	
OS	Treponema pallidum;	ssp. endemicum.
XX		
FT	Key	Location/Qualifiers
FT	CDS	1..939
FT		/ftag= a
XX		
XX		
XX		
PD	21-DEC-2000.	
XX		
XX		
PF	14-JUN-2000;	2000MO-US016425.
XX		
PR	14-JUN-1999;	99US-0138981P.
XX		
PA	(USSH )	US DEPT HEALTH & HUMAN SERVICES.
XX		
PI	Liu H, Steiner B,	Rhodes B;
XX		
DR	WPI; 2001-080711/09.	
XX		
XX	P-PSDB; AAB48318.	
PT	Detecting Treponema pallidum	in blood, saliva, etc., by detecting
PT	formation of a complex between	immunogenic peptides of acidic repeat
PT	protein of the bacterium and an	antibody present in the biological
XX		
XX	Claum 19; Fig 9; 73pp;	English.
XX		
CC	The invention relates to a method	of detecting presence of Treponema

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OM nucleic - nucleic search, using SW model

Run on: March 23, 2005, 10:23:14 ; Search time 3334.67 Seconds  
(without alignments)  
10718.395 Million cell updates/sec

Title: US-10-017-168-5

Perfect score: 939  
Sequence: 1 atcgttcgtgcgcagtgacat.....atcagttccggaaccctga 939

Scoring table: IDENTITY NUC  
Gapop 10.0, Gapext 1.0

Searched: 34239544 seqs, 19032134700 residues

Total number of hits satisfying chosen parameters: 68479088

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database :

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1: gb\_est1.\*  
2: gb\_est2.\*  
3: gb\_hcc.\*  
4: gb\_est3.\*  
5: gb\_est4.\*  
6: gb\_est5.\*  
7: gb\_est6.\*  
8: gb\_gsa1.\*  
9: gb\_gsa2.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
C 1	134.8	14.4	776	9	AG561854 Mus muscu
C 2	129	13.7	709	9	AG351718 Mus muscu
C 3	126.2	13.4	650	8	AZ337339 IM006803
C 4	124.6	13.1	1089	8	BM468944 AGENCOURT
C 5	122.8	13.1	623	9	CRO55317 Reverse
C 6	122.8	13.1	1110	9	CL079755 Reverse
C 7	122.8	13.1	1313	7	CF874294 IM0141E03
C 8	122.6	13.1	523	8	AZ383375 IM0141E03
C 9	122	13.0	1945	8	CC251395 CH261-157
C 10	121.2	12.9	1083	7	CV520573 0089P0047
C 11	121.2	12.9	1448	8	CC220110 CH261-92F
C 12	120.4	12.8	860	6	CB904993 trlC040XP
C 13	120.2	12.8	697	6	BY752869 Reverse
C 14	120.2	12.8	1031	9	CL492176 SAIL_564
C 15	120.2	12.8	1231	9	AG363910 Mus muscu
C 16	120	12.8	1555	9	CL073978 CH216-131
C 17	119.8	12.8	1560	9	CL081488 CH216-162
C 18	119.8	12.8	1656	9	AG430456 Mus muscu
C 19	119.6	12.7	602	9	CRO23579 Reverse
C 20	119.6	12.7	870	2	BE258873 601116824
C 21	119.6	12.7	1292	8	CC208790 CH261-26P
C 22	119.2	12.7	1484	9	CL079800 CH216-156
C 23	119.2	12.7	817	8	AZ196702 SP_1032_B
C 24	119.2	12.7	1546	9	AG435295 Mus muscu

25	119	12.7	935	4	B1958090
C 26	119	12.7	1153	8	CC294165
C 27	118.8	12.7	517	9	TA21B11Q
C 28	118.8	12.7	1100	8	CC262597
C 29	118.8	12.7	1233	9	AG396109
C 30	118.6	12.6	1196	8	CC298943
C 31	118.4	12.6	1035	9	CU086207
C 32	118.4	12.6	1082	8	CC300639
C 33	118.4	12.6	1309	9	CU080508
C 34	118.4	12.6	1373	9	AG435617
C 35	118.2	12.6	548	9	BX121682
C 36	118.2	12.6	837	9	CR074624
C 37	118.2	12.6	883	8	AZ186646
C 38	118.2	12.6	911	9	CR116264
C 39	118.2	12.6	1238	9	AG448606
C 40	118.2	12.6	1471	9	CG748176
C 41	118.2	12.6	1696	9	AG382169
C 42	118	12.6	845	9	CC578225
C 43	118	12.6	1011	6	CB905602
C 44	118	12.6	1011	7	CF877292
C 45	118	12.6	1193	9	AG349830

#### ALIGNMENTS

RESULT 1  
LOCUS AG561854/c  
DEFINITION Mus musculus molossinus DNA, clone:MSMg01-481H05.T7, genomic survey  
ACCESSION AG561854  
VERSION AG561854.1 GI:48322552  
KEYWORDS GSS.  
SOURCE Mus musculus molossinus  
ORGANISM Mus musculus molossinus  
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.  
REFERENCE 1  
Hattori, M., Toyoda, A., Noguchi, H., Kojima, T. and Sakaki, Y.  
BAC and Sequences of Library MSMg01  
Unpublished  
2 (bases 1 to 776)  
Hattori, M., Toyoda, A., Noguchi, H., Kojima, T. and Sakaki, Y.  
Direct Submission  
Submitted (17-NOV-2003) Masahira Hattori, The Institute of Physical and Chemical Research (RIKEN), Genomic Sciences Center (GSC);  
1-7-22 Suehiro-chou, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan  
(E-mail: hattori@gsc.riken.jp, URL: http://hgp.gsc.riken.go.jp/,  
Tel: 81-45-503-9111, Fax: 81-45-503-9170)  
Clones are derived from the mouse BAC library MSMg01. For BAC library availability, please contact Kunita Abe (abe@rtc.riken.jp).  
Tsukuba Institute, Bio Resource Center,  
The Institute of Physical and Chemical Research (RIKEN) 3-1-1  
Koyadai, Tsukuba, 305-0074 Japan  
phone: 81-298-36-9189, fax: 81-298-36-9199  
e-mail: abe@rtc.riken.jp  
PRIMERS  
Sequencing : T7  
LIBRARY  
Vector : pBAC3.6  
R.Site 1 : EcorI  
R.Site 2 : EcorI.  
FEATURES  
source location/Qualifiers  
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/sex="male"  
/tissue\_type="mixture of kidney and spleen"  
/clone\_id="MSMg01 Mouse Male BAC Library"

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OW nucleic - nucleic search, using sw model

Run on: March 23, 2005, 10:23:13 ; Search time 5280.43 Seconds  
(without alignments)  
10846.472 Million cell updates/sec

Title: US-10-017-168-25

Sequence: 1 atcgttctgcgcagtgacat.....ttctgaaaaagcgcgatga 1182

Scoring table: IDENTITY NUC  
Gapop 10.0, Gapext 1.0

Searched: 4708233 seqs, 24227607955 residues

Total number of hits satisfying chosen parameters: 9416466

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database :

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2: gb\_hcg:\*  
3: gb\_in:\*  
4: gb\_cm:\*  
5: gb\_ov:\*  
6: gb\_pat:\*  
7: gb\_ph:\*  
8: gb\_pl:\*  
9: gb\_pr:\*  
10: gb\_ro:\*  
11: gb\_str:\*  
12: gb\_sy:\*  
13: gb\_un:\*  
14: gb\_vl:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	1182	100.0	1182	1	AF411126	AF411126 Treponema
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3	1067	90.3	1287	1	AF342807	AF342807 Treponema
4	902	76.3	1047	1	AF342806	AF342806 Treponema
5	788	66.7	1647	1	AF411124	AF411124 Treponema
6	777	65.7	2945	6	AX068032	AX068032 Sequence
7	777	65.7	2946	1	AF015824	AF015824 Sequence
8	721.4	61.0	939	6	AX068036	AX068036 Sequence
9	601.4	50.9	699	6	AX068034	AX068034 Sequence
10	134.8	11.4	211580	2	AC111089	AC111089 Mus muscu
11	131.6	11.1	178757	10	AC122509	AC122509 Mus muscu
12	130	11.0	215769	10	AC100209	AC100209 Mus muscu
13	128.6	10.9	266556	2	AC136868	AC136868 Rattus no
14	128	10.8	189459	10	AC125192	AC125192 Mus muscu
15	126.8	10.7	125861	10	AC122889	AC122889 Mus muscu
16	124.2	10.5	165592	10	AC122020	AC122020 Mus muscu
17	123.6	10.4	199854	10	AL591208	AL591208 Mouse DNA
18	123	10.4	289751	10	AC091458	AC091458 Mus muscu
19	123	10.4	289751	10	AC091458	AC091458 Mus muscu

20	122.6	10.4	152435	10	AC121566	AC121566 Mus muscu
21	122.6	10.4	197411	10	AC135961	AC135961 Mus muscu
22	122.4	10.4	139630	10	AC133945	AC133945 Mus muscu
23	122.2	10.3	178258	2	AC109296	AC109296 Mus muscu
24	122	10.3	120487	10	AC103637	AC103637 Mus muscu
25	122	10.3	171593	10	AC122052	AC122052 Mus muscu
26	122	10.3	216602	10	AC136729	AC136729 Mus muscu
27	122	10.3	217953	10	AC149611	AC149611 Mus muscu
28	122	10.3	219771	2	BX005376	BX005376 Danto rer
29	122	10.3	229190	10	AC127348	AC127348 Mus muscu
30	121.6	10.3	220625	2	AC096018	AC096018 Rattus no
31	121.4	10.3	182272	10	AC122232	AC122232 Mus muscu
32	121.4	10.3	208880	10	AC123837	AC123837 Mus muscu
33	121	10.2	163945	2	AC116727	AC116727 Mus muscu
34	120.6	10.2	110000	10	AB016753_2	Continuation (3 of
35	120.4	10.2	318930	2	AC073495	AC073495 Mus muscu
36	119.8	10.1	154462	2	AC145149	AC145149 Homo sapi
37	119.8	10.1	191753	10	AC125235	AC125235 Mus muscu
38	119.8	10.1	196236	10	AC108780	AC108780 Mus muscu
39	119.8	10.1	197683	10	AC118476	AC118476 Mus muscu
40	119.8	10.1	203086	10	AC099948	AC099948 Mus muscu
41	119.8	10.1	215745	10	AC117585	AC117585 Mus muscu
42	119.6	10.1	211161	2	AC098271	AC098271 Rattus no
43	119.2	10.1	172853	10	AC120147	AC120147 Mus muscu
44	119.2	10.1	182777	10	AC115928	AC115928 Mus muscu
45	119.2	10.1	192371	10	AC123857	AC123857 Mus muscu

## ALIGNMENTS

RESULT 1  
AF411126 1182 bp DNA linear BCT 26-SEP-2001  
LOCUS  
DEFINITION Treponema pallidum subsp. pertenue strain CDC1 acidic repeat  
protein (arp) gene, complete cds.  
ACCESSION  
AF411126  
AF411126.1 GI:15778314

### KEYWORDS

Treponema pallidum subsp. pertenue (Yaws treponeme)

Treponema pallidum subsp. pertenue

Bacteria; Spirochaetes; Spirochaetales; Spirochaetaceae; Treponema.

REFERENCE  
Lin, H., Steiner, B.M. and Rodas, B.

Molecular characterization of the acidic repeat protein gene (arp)

of Treponema pallidum

Unpublished

2 (bases 1 to 1182)

Direct Submission

Submitted (17-AUG-2001) National Center for Infectious Diseases,

Centers for Disease Control and Prevention, 1600 Clifton Rd,

Atlanta, GA 30333, USA

Location/Qualifiers

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/mol\_type="Genomic DNA"

/strain="CDC1"

/sub\_species="pertenue"

/db\_xref="taxon:168"

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/gene="arp"

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/protein\_id="AAL07373.1"

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AGHTVPEYRDIVFDPPRLVPSLSRGGREVEVPKVPASRGGREVEVPKVP

VPASRGGREVEVPKVPASRGGREVEVPKVPASRGGREVEVPKVP

VPASRGGREVEVPKVPASRGGREVEVPKVPASRGGREVEVPKVP



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OM nucleic - nucleic search, using sw model

Run on: March 23, 2005, 10:23:13 ; Search time 666.8 Seconds

(without alignments)  
10493.597 Million cell updates/sec

Title: US-10-017-168-25

Perfect score: 1182

Sequence: 1 atgtcttcgcgcagtcacat.....ttctgaaagcgcgatga 1182

Scoring table: IDENTITY NUC

Search: 4390206 seqs, 2959870667 residues

Total number of hits satisfying chosen parameters: 8780412

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database: N\_Geneseq\_16Dec04.\*

1: Geneseq19808.\*  
2: Geneseq19908.\*  
3: Geneseq20008.\*  
4: Geneseq2001as.\*  
5: Geneseq2001bs.\*  
6: Geneseq2002as.\*  
7: Geneseq2002bs.\*  
8: Geneseq2003as.\*  
9: Geneseq2003bs.\*  
10: Geneseq2003cs.\*  
11: Geneseq2003ds.\*  
12: Geneseq2004as.\*  
13: Geneseq2004bs.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1020.8	86.4	9410	2	AAX20603 Polynucle
2	777	65.7	2945	4	AAC84647 T. pallid
3	721.4	61.0	939	4	AAC84649 T. pallid
4	601.4	50.9	699	4	AAC84648 T. pallid
5	110.8	9.4	628	12	ACH89664 Human gen
6	108.2	9.2	795	2	AAV55830 FLGA Inse
7	106	9.0	30191	12	ADQ97654 Mouse can
8	105.8	9.0	799	2	AAV55831 Nucleicid
9	105.8	9.0	1926	3	AAV50254 Eprein B
10	105.8	9.0	1926	4	AAV50254 Eprein B
11	105.8	9.0	1926	10	AAV50254 Eprein B
12	105.8	9.0	2580	6	AAV50254 Eprein B
13	105.8	9.0	2580	6	AAV50254 Eprein B
14	105.8	9.0	5452	2	AAZ23778 Vector ps
15	105.8	9.0	8705	2	AAZ23778 Vector ps
16	105.8	9.0	8705	12	ADMI0659 Expressio
17	105.8	9.0	9482	12	ADP64415 Vector pc
18	105.8	9.0	9600	2	AAV21683 Vector pc
19	105.8	9.0	10285	6	AB871027 PCBP-Xa-F
20	105.8	9.0	10285	6	AB866453 Plasmid p

C	21	105.8	9.0	10330	12	ADL67154 Plasmid p
C	22	105.8	9.0	10380	2	AAZ22248 Nucleicid
C	23	105.8	9.0	10477	12	ADL67152 Plasmid p
C	24	105.8	9.0	10516	12	ADL67150 Plasmid p
C	25	105.8	9.0	10561	12	ADL67148 Plasmid p
C	26	105.8	9.0	10596	2	AAOS1731 Plasmid p
C	27	105.8	9.0	10596	2	AAV55830 Nucleicid
C	28	105.8	9.0	10596	2	AAV40348 Plasmid p
C	29	105.8	9.0	10615	12	ADL67175 Plasmid p
C	30	105.8	9.0	10774	12	ADL67153 Plasmid p
C	31	105.8	9.0	10921	12	ADL67151 Plasmid p
C	32	105.8	9.0	10961	12	ADL67149 Plasmid p
C	33	105.8	9.0	11006	12	ADL67147 Plasmid p
C	34	105.8	9.0	11059	12	ADL67176 Plasmid p
C	35	105.8	9.0	11693	13	ADRI2379 Vector pc
C	36	105.8	9.0	11934	12	ADQ07395 Modified
C	37	105.8	9.0	12242	12	ADQ07394 Modified
C	38	105.8	9.0	16080	3	AAAS9553 DNA clone
C	39	105.8	9.0	17753	12	ADL71910 Expressio
C	40	105.8	9.0	17281	12	ADN12161 Eprein-B
C	41	105	8.9	8298	4	AAK72613 Human imm
C	42	104.2	8.8	1925	2	AAV50924 Eprein B
C	43	100.8	8.5	26214	12	ADQ97246 Mouse can
C	44	97.8	8.3	12733	6	ABK98631 Vector ps
C	45	97.8	8.3	12733	9	ACD13882 L. lactis

#### ALIGNMENTS

RESULT 1	AAX20603	AAX20603 standard; DNA; 9410 BP.
ID	AAX20603	
XX	AAX20603	
AC	05-MAY-1999	(first entry)
DT	05-MAY-1999	(first entry)
XX	Polynucleotide sequence from the genome of Treponema pallidum.	
DE	Treponema pallidum infection; syphilis; Borrelia infection; animal;	
XX	enzyme production; ds.	
KW	Treponema pallidum.	
XX	OS	
XX	PN	WO9859034-A2.
XX	PD	30-DEC-1998.
XX	PF	23-JUN-1998; 98WO-US013041.
XX	PR	24-JUN-1997; 97US-0050667P.
XX	PA	(HUMA-) HUMAN GENOME SCI INC.
XX	PI	Fraser CM;
XX	WP	1999-081273/07.
XX	PT	New isolated Treponema pallidum nucleic acid - used to develop products for the detection, diagnosis, characterisation, prevention and therapy of T. pallidum infections, particularly syphilis.
XX	PS	Claim 1; Page 693-698; 1150pp; English.
XX	CC	AAZ20500-21243 represent polynucleotide sequences from the genome of Treponema pallidum. The sequences can be used for detection, diagnosis, characterisation, prevention and therapy for T. pallidum infections, particularly syphilis. They can also be used for detecting diseases related to Borrelia infections in animals, and for the production of biosynthetic products such as enzymes
XX	CC	Sequence 9410 BP; 1934 A; 2470 C; 2830 G; 2153 T; 0 U; 23 Other;

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OM nucleic - nucleic search, using sw model

Run on: March 23, 2005, 10:23:13 ; Search time 5749.51 Seconds  
(without alignments)  
10846.472 Million cell updates/sec

Title: US-10-017-168-23

Perfect score: 1287  
Sequence: 1 atgtttgtgcgcgcgtacat.....ttctgaaaaagcgcgatga 1287

Scoring table: IDENTITY NUC  
Gapop 10.0, Gapext 1.0

Searched: 4708233 seqs, 24227607955 residues

Total number of hits satisfying chosen parameters: 9416466

Minimum DB seq length: 0  
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database: GenEmb1.\*

- 1: gb\_ba.\*
- 2: gb\_hcg.\*
- 3: gb\_in.\*
- 4: gb\_om.\*
- 5: gb\_ov.\*
- 6: gb\_pat.\*
- 7: gb\_ph.\*
- 8: gb\_pl.\*
- 9: gb\_pr.\*
- 10: gb\_ro.\*
- 11: gb\_srs.\*
- 12: gb\_sy.\*
- 13: gb\_un.\*
- 14: gb\_vi.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
1	1287	100.0	1287	1	AF342807	Treponema
2	1125	87.4	14268	1	AE001220	Treponema
3	1067	82.9	1182	1	AF411126	Treponema
4	933.4	72.5	939	6	AX068036	Sequence
5	909	70.6	1647	1	AF411124	Treponema
6	896.4	69.7	2945	6	AX068032	Sequence
7	896.4	69.7	2946	1	AF015824	Treponema
8	797	61.9	1047	1	AF342806	Treponema
9	626.4	48.7	699	6	AX068034	Sequence
10	169.4	13.2	211580	2	AC111089	Mus muscu
11	163	12.7	178757	10	AC122509	Mus muscu
12	154.4	12.0	197411	10	AC135961	Mus muscu
13	154	12.0	260625	2	AC096018	Rattus no
14	150.2	11.7	318930	2	AC073495	Mus muscu
15	149.6	11.6	216945	10	AC136729	Mus muscu
16	148.6	11.5	163945	2	AC116727	Mus muscu
17	148.6	11.5	217353	10	AC149611	Mus muscu
18	148.6	11.5	229190	10	AC127348	Mus muscu
19	148	11.5	165592	10	AC122020	Mus muscu

20	147.8	11.5	211161	2	AC098271	Rattus no
21	147.6	11.5	152618	10	AC127583	Mus muscu
22	145.8	11.3	124244	10	AL929026	DNA
23	145.8	11.3	197683	10	AL18476	Mus muscu
24	145.4	11.3	200574	10	BX005304	Mouse DNA
25	145.4	11.3	215745	10	AC117585	Mus muscu
26	145.4	11.3	237814	10	AC091464	Mus muscu
27	145	11.3	19206	2	AC124108	Mus muscu
28	144.8	11.3	144093	2	AC109193	Mus muscu
29	144.6	11.2	110000	2	AC120236	Rattus no
30	144.6	11.2	192371	10	AC123857	Mus muscu
31	144.2	11.2	120487	10	AC103637	Mus muscu
32	144.2	11.2	171593	10	AC122052	Mus muscu
33	144.2	11.2	203490	10	AC122851	Mus muscu
34	143.8	11.2	182272	10	AC122232	Mus muscu
35	143.8	11.2	191753	10	AC125235	Mus muscu
36	143.2	11.1	194736	10	AC126271	Mus muscu
37	143.2	11.1	205054	10	AC098712	Mus muscu
38	143	11.1	206497	10	AC084389	Mus muscu
39	142.8	11.1	152435	10	AC121566	Mus muscu
40	142.8	11.1	253504	10	AC102602	Mus muscu
41	142.6	11.1	125681	10	AC122889	Mus muscu
42	142.6	11.1	199459	10	AC125192	Mus muscu
43	142.2	11.0	1798520	10	AC121865	Mus muscu
44	142.2	11.0	199854	10	AL591208	Mouse DNA
45	142.2	11.0	208880	10	AC123837	Mus muscu

## ALIGNMENTS

RESULT 1	AF342807	1287 bp	DNA	linear	BCT 13-SEP-2001
LOCUS	AF342807				
DEFINITION	Treponema pallidum subsp. endemicum strain Bosnia acidic repeat protein (arp) gene, complete cds.				
ACCESSION	AF342807				
VERSION	AF342807.2	GI:15617206			
KEYWORDS	Treponema pallidum subsp. endemicum				
SOURCE	Treponema pallidum subsp. endemicum				
ORGANISM	Bacteria; Spirochaetes; Spirochaetales; Spirochaetaceae; Treponema				
REFERENCE	1 (bases 1 to 1287)				
AUTHORS	Liu H., and Steiner, B.				
TITLE	Acidic repeat protein (arp) gene sequence of Treponema pallidum subsp. endemicum (Bosnia strain)				
JOURNAL	Unpublished				
REFERENCE	2 (bases 1 to 1287)				
AUTHORS	Liu H., Steiner, B.M., and Rodas, B.				
TITLE	Molecular characterization of the acidic repeat protein (arp) of Treponema pallidum				
JOURNAL	Unpublished				
REFERENCE	3 (bases 1 to 1287)				
AUTHORS	Liu H. and Steiner, B.				
TITLE	Direct Submission				
JOURNAL	Submitted (25-JAN-2001) National Center for Infectious Diseases, Centers for Disease Control and Prevention, 1600 Clifton Rd. Mail Stop D13, Atlanta, GA 30333, USA				
REFERENCE	4 (bases 1 to 1287)				
AUTHORS	Liu H., Steiner, B. and Rodas, B.				
TITLE	Direct Submission				
JOURNAL	Submitted (13-SEP-2001) National Center for Infectious Diseases, Centers for Disease Control and Prevention, 1600 Clifton Rd. Mail Stop D13, Atlanta, GA 30333, USA				
REMARK	Sequence update by submitter				
COMMENT	On Sep 13, 2001 this sequence version replaced gi:12667500.				
FEATURES	Location/Qualifiers				
source	1..1287				
	/organism="Treponema pallidum subsp. endemicum"				
	/mol_type="genomic DNA"				
	/strain="Bosnia"				
	/sub_species="endemicum"				
	/db_xref="taxon:53436"				

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OM nucleic - nucleic search, using bw model

Run on: March 23, 2005, 10:23:14 ; Search time 4570.53 Seconds  
(without alignments)  
10718.395 Million cell updates/sec

Title: US-10-017-168-23

Perfect score: 1287  
Sequence: 1 atctctgtcgcgcagtcgacat.....ttctgaaaagcgcgacatga 1287

Scoring table: IDENTITY NUC  
Gapop 10.0, Gapext 1.0

Searched: 34239544 seqs, 19032134700 residues

Total number of hits satisfying chosen parameters: 68479088

Minimum DB seq length: 0  
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database: EST:  
1: gb\_est1:  
2: gb\_est2:  
3: gb\_hc:  
4: gb\_est3:  
5: gb\_est4:  
6: gb\_est5:  
7: gb\_est6:  
8: gb\_g881:  
9: gb\_g882:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
C 1	134.8	10.5	776	AG561854	Mus muscu
C 2	129	10.0	709	AG351718	Mus muscu
C 3	126.2	9.8	650	AZ337339	IM0068B03
C 4	124.6	9.7	1089	BM468944	AGENCOURT
C 5	122.8	9.5	623	CR055317	Reverse
C 6	122.8	9.5	1110	CL079755	CH216-156
C 7	122.6	9.5	523	CF874294	tr1c006xm
C 8	122.6	9.5	523	AZ383175	IM0141B03
C 9	122	9.5	1945	CC251395	CH261-157
C 10	121.2	9.4	1083	CV520573	0089P0047
C 11	121.2	9.4	1448	CC220110	CH261-92F
C 12	120.4	9.4	860	CB904933	tr1c040xp
C 13	120.2	9.3	697	BY752869	BY752869
C 14	120.2	9.3	1031	CL492176	SAIL_564
C 15	120.2	9.3	1231	AG363910	Mus muscu
C 16	120	9.3	1555	CL073978	CH216-131
C 17	119.8	9.3	1560	CL081488	CH216-162
C 18	119.8	9.3	1656	AG430456	Mus muscu
C 19	119.6	9.3	602	CR023579	Reverse
C 20	119.6	9.3	870	BE258873	601116824
C 21	119.6	9.3	1292	CC208790	CH261-26P
C 22	119.2	9.3	1484	CL079800	CH216-156
C 23	119.2	9.3	817	AZ196702	SP_1032_B
C 24	119.2	9.3	1546	AG435295	Mus muscu

25	119	9.2	935	4	BI958090	HYSMEN001
C 26	119	9.2	1133	8	CC294165	CC294165
C 27	118.8	9.2	517	7	TA21B11Q	AL453768 T. brucei
C 28	118.8	9.2	1100	8	CC262597	CH261-167
C 29	118.8	9.2	1233	9	AG396109	Mus muscu
C 30	118.6	9.2	1196	8	CC298943	CH261-22C
C 31	118.4	9.2	1035	9	CL086207	ISB1-7A17
C 32	118.4	9.2	1082	8	CC300639	CC300639
C 33	118.4	9.2	1309	8	CL080508	CH216-158
C 34	118.4	9.2	1373	9	AG435617	Mus muscu
C 35	118.2	9.2	548	9	BX121682	DX121682
C 36	118.2	9.2	837	9	CR074624	Forward
C 37	118.2	9.2	883	9	AZ186646	SP_1007_B
C 38	118.2	9.2	911	9	CR116264	Forward
C 39	118.2	9.2	1238	9	AG448606	Mus muscu
C 40	118.2	9.2	1471	9	CG748176	P042-1-A0
C 41	118.2	9.2	1696	9	AG382169	Mus muscu
C 42	118	9.2	845	9	CC578225	CH240_457
C 43	118	9.2	1011	6	CB905602	tr1c075xf
C 44	118	9.2	1011	7	CF877292	tr1c075xf
C 45	118	9.2	1193	9	AG349830	Mus muscu

## ALIGNMENTS

RESULT 1  
AG561854/c  
LOCUS  
DEFINITION  
MUS MUSCULUS MOLOSEINUS DNA, clone:MSMg01-481H05.T7, genomic survey  
SEQUENCE  
AG561854 776 bp DNA linear GSS 05-JUN-2004  
AG561854  
AG561854.1 GI:48322552  
KEYWORDS  
SOURCE  
MUS MUSCULUS MOLOSEINUS  
ORGANISM  
MUS MUSCULUS MOLOSEINUS  
REFERENCE  
Hattori,M., Toyoda,A., Noguchi,H., Kojima,T. and Sakaki,Y.  
BAC end Sequences of Library MSMg01  
JOURNAL  
Unpublished  
2 (bases 1 to 776)  
Hattori,M., Toyoda,A., Noguchi,H., Kojima,T. and Sakaki,Y.  
Direct Submission  
Submitted (17-NOV-2003) Masahira Hattori, The Institute of Physical and Chemical Research (RIKEN), Genomic Sciences Center (GSC), 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:hattori@gsc.riken.jp; URL:http://hgp.gsc.riken.go.jp/, Tel:81-45-503-9111, Fax:81-45-503-9170)  
Clones are derived from the mouse BAC library MSMg01. For BAC library availability, please contact Kunita Abe (abe@rtc.riken.jp).  
Tsukuba Institute, Bio Resource Center.  
The Institute of Physical and Chemical Research (RIKEN) 3-1-1  
Koyadai, Tsukuba, 305-0074 Japan  
phone: 81-298-36-9189, fax: 81-298-36-9199  
e-mail: abe@rtc.riken.jp  
PRIMERS  
Sequencing : T7  
LIBRARY  
Vector : pBACe3.6  
R.site 1 : EcoRI  
R.site 2 : EcoRI.  
FEATURES  
source  
1. 776  
/organism="Mus musculus moloseinus"  
/mol\_type="genomic DNA"  
/sub\_species="mooseinus"  
/db\_xref="taxon:57486"  
/clone="MSMg01-481H05.T7"  
/sex="male"  
/tissue\_type="mixture of kidney and spleen"  
/clone\_lib="MSMg01 Mouse Male BAC library"



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OM nucleic - nucleic search, using sw model

Run on: March 23, 2005, 10:23:13 ; Search time 726.034 Seconds  
(without alignments)  
10493.597 Million cell updates/sec

Title: US-10-017-168-23

Sequence: 1287  
1 atgttctgcgcagtcgacat.....ttctgaaaagcgcgcatga 1287

Scoring table: IDENTITY NUC  
Gapop 10.0, Gapext 1.0

Searched: 4390206 seqs, 2959870667 residues

Total number of hits satisfying chosen parameters: 8780412

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-Processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : N\_Geneseq\_16Dec04:\*  
1: geneseqn1808:\*  
2: geneseqn1908:\*  
3: geneseqn2000:\*  
4: geneseqn2001as:\*  
5: geneseqn2001bs:\*  
6: geneseqn2002as:\*  
7: geneseqn2002bs:\*  
8: geneseqn2003as:\*  
9: geneseqn2003bs:\*  
10: geneseqn2003cs:\*  
11: geneseqn2004as:\*  
12: geneseqn2004bs:\*  
13: geneseqn2004ds:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match %	Length	DB ID	Description
1	933.4	72.5	939	4 AAC84649	AAC84649 T. pallid
2	933	72.5	9410	2 AAC20603	AAC20603 Polynucle
3	896.4	69.7	2945	4 AAC84647	AAC84647 T. pallid
4	626.4	48.7	699	4 AAC84648	AAC84648 T. pallid
5	130	10.1	30191	12 ADQ97654	ADQ97654 Mouse can
6	129.4	10.1	799	2 AAV55831	AAV55831 Nucleoid
7	129.4	10.1	1936	3 AA50254	AA50254 Epstein B
8	129.4	10.1	1926	4 AAF82902	AAF82902 EBV vecte
9	129.4	10.1	1926	10 ADK65580	ADK65580 Human her
10	129.4	10.1	2580	3 AAI75454	AAI75454 Nucleoid
11	129.4	10.1	2580	6 AAI64275	AAI64275 Epstein-B
12	129.4	10.1	5452	2 AAX90923	AAX90923 Anti-sens
13	129.4	10.1	8705	12 AA237778	AA237778 Vector ps
14	129.4	10.1	8705	12 ADM10659	ADM10659 Expressio
15	129.4	10.1	9482	12 AAV21683	AAV21683 Vector pl
16	129.4	10.1	9600	2 AAV21683	AAV21683 Vector pl
17	129.4	10.1	10285	6 ABS71027	ABS71027 pCEP-Xa-F
18	129.4	10.1	10285	6 ABS64453	ABS64453 Plasmid p
19	129.4	10.1	10310	12 ADL67154	ADL67154 Plasmid p
20	129.4	10.1	10380	2 AA222248	AA222248 Nucleoid

## ALIGNMENTS

21	129.4	10.1	10477	12 ADL67152	ADL67152 Plasmid p
22	129.4	10.1	10516	12 ADL67150	ADL67150 Plasmid p
23	129.4	10.1	10561	12 ADL67148	ADL67148 Plasmid p
24	129.4	10.1	10596	2 AAQ51731	AAQ51731 Plasmid p
25	129.4	10.1	10596	2 AAX15650	AAX15650 Nucleoid
26	129.4	10.1	10596	2 AAT40348	AAT40348 Nucleoid
27	129.4	10.1	10615	12 ADL67175	ADL67175 Plasmid p
28	129.4	10.1	10774	12 ADL67153	ADL67153 Plasmid p
29	129.4	10.1	10921	12 ADL67151	ADL67151 Plasmid p
30	129.4	10.1	10961	12 ADL67149	ADL67149 Plasmid p
31	129.4	10.1	11006	12 ADL67147	ADL67147 Plasmid p
32	129.4	10.1	11059	12 ADL67176	ADL67176 Plasmid p
33	129.4	10.1	11693	13 ADL67175	ADL67175 Plasmid p
34	129.4	10.1	11924	12 ADL67151	ADL67151 Plasmid p
35	129.4	10.1	12242	12 ADL67149	ADL67149 Plasmid p
36	129.4	10.1	16080	3 AAX59553	AAX59553 DNA clone
37	129.4	10.1	17753	12 ADL71910	ADL71910 Expressio
38	129.4	10.1	172281	12 ADN12161	ADN12161 Epstein-B
39	129.2	10.0	1925	2 AAX90924	AAX90924 Epstein B
40	128.4	10.0	795	2 AAV55830	AAV55830 FLCA inbe
41	125.2	9.7	628	12 ACH89664	ACH89664 Human gen
42	120.8	9.4	26214	12 ADQ97246	ADQ97246 Mouse can
43	118.8	9.2	12733	6 ABK98631	ABK98631 Vector pE
44	118.8	9.2	12733	9 ACD13882	ACD13882 L. lactis
45	118.8	9.2	12739	6 ABK98592	ABK98592 Vector pE

RESULT 1	AAC84649	standard; DNA; 939 BP.
XX	AAAC84649;	
AC	AAAC84649;	
XX	AAAC84649;	
DT	11-SEP-2003 (revised)	
DT	20-APR-2001 (first entry)	
XX	T. pallidum (Bosnia) acidic repeat protein (arp) encoding DNA.	
DE	T. pallidum (Bosnia) acidic repeat protein (arp) encoding DNA.	
XX	Treponema pallidum; acidic repeat protein; arp; immunogenic; syphilis;	
KW	Yaws; Bejel; ds.	
XX	Treponema pallidum; ssp. endemicum.	
OS	Treponema pallidum; ssp. endemicum.	
XX	Treponema pallidum; ssp. endemicum.	
XX	Treponema pallidum; ssp. endemicum.	
FT	Key	Location/Qualifiers
FT	CDS	1..939
FT		/*tag= a
XX	WO200077486-A2.	
PN	WO200077486-A2.	
XX	21-DEC-2000.	
PD	21-DEC-2000.	
XX	14-JUN-2000; 2000MO-US016425.	
PF	14-JUN-2000; 2000MO-US016425.	
XX	14-JUN-1999; 99US-0138981P.	
PR	14-JUN-1999; 99US-0138981P.	
XX	(USSH) US DEPT HEALTH & HUMAN SERVICES.	
PA	(USSH) US DEPT HEALTH & HUMAN SERVICES.	
XX	Liu H, Steiner B, Rhodes B;	
PI	Liu H, Steiner B, Rhodes B;	
XX	WPI; 2001-080711/09.	
DR	WPI; 2001-080711/09.	
XX	P-PSDB; AAB48318.	
XX	P-PSDB; AAB48318.	
PT	Detecting Treponema pallidum in blood, saliva, etc., by detecting	
PT	formation of a complex between immunogenic peptides of acidic repeat	
PT	protein of the bacterium and an antibody present in the biological	
PT	sample.	
XX	Claim 19; Fig 9; 73p; English.	
PS	Claim 19; Fig 9; 73p; English.	
XX	The invention relates to a method of detecting presence of Treponema	

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OW nucleic - nucleic search, using sw model

Run on: March 23, 2005, 10:23:13 ; Search time 4677.34 Seconds  
(without alignments)  
10846.472 Million cell updates/sec

Title: US-10-017-168-21

Sequence: 1 atgtctgtgcgcagtcagatc.....ttctgaagaagcgcatga 1047

Scoring table: IDENTITY\_NUC  
Gapop 10.0 , Gapext 1.0

Searched: 4708233 seqs, 24227607955 residues

Total number of hits satisfying chosen parameters: 9416466

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

GenBank1:  
1: gb\_ba:\*  
2: gb\_bhg:\*  
3: gb\_in:\*  
4: gb\_om:\*  
5: gb\_ov:\*  
6: gb\_pat:\*  
7: gb\_ph:\*  
8: gb\_pl:\*  
9: gb\_pr:\*  
10: gb\_ro:\*  
11: gb\_sts:\*  
12: gb\_sy:\*  
13: gb\_un:\*  
14: gb\_vl:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1047	100.0	1047	1	AF342806
2	902	86.2	1182	1	AF411126
3	847.6	81.0	14268	1	AE001220
4	797	76.1	1287	1	AF342807
5	693.4	66.2	699	6	AX068034
6	653	62.4	1647	1	AF411124
7	642	61.3	2945	6	AX068032
8	642	59.8	2946	6	AX068036
9	626.4	59.8	939	6	AX068036
10	89.4	8.5	21580	2	AC111089
11	88.4	8.4	16552	10	AC122020
12	87.8	8.4	21971	2	BX005376
13	87.8	8.4	253504	2	AC102602
14	87.8	8.4	266556	2	AC136868
15	87.6	8.3	233939	2	AC105853
16	87.2	8.3	269572	2	AC108552
17	86.8	8.3	110000	10	AE016753_2
18	86.8	8.3	152435	10	AC121566
19	86.2	8.2	125681	10	AC122889

C 20	86.2	8.2	161905	10	AL929034	AL929034 Mouse DNA
C 21	86.2	8.2	178757	10	AC122509	AC122509 Mus muscu
C 22	86.2	8.2	196236	10	AC108780	AC108780 Mus muscu
C 23	86.2	8.2	197411	10	AC135961	AC135961 Mus muscu
C 24	86.2	8.2	203086	10	AC099948	AC099948 Mus muscu
C 25	86.2	8.2	215769	10	AC100209	AC100209 Mus muscu
C 26	85.6	8.2	192371	10	AC123857	AC123857 Mus muscu
C 27	85.6	8.2	199459	10	AC125192	AC125192 Mus muscu
C 28	85.2	8.1	143913	2	AC124827	AC124827 Mus muscu
C 29	84.6	8.1	120487	10	AC103637	AC103637 Mus muscu
C 30	84.6	8.1	163882	10	AC133904	AC133904 Mus muscu
C 31	84.6	8.1	171593	10	AC122052	AC122052 Mus muscu
C 32	84.6	8.1	179063	10	AC145590	AC145590 Mus muscu
C 33	84.6	8.1	191753	10	AC125235	AC125235 Mus muscu
C 34	84.6	8.1	199854	10	AL591208	AL591208 Mouse DNA
C 35	84.6	8.1	210595	2	AC116862	AC116862 Mouse DNA
C 36	84.6	8.1	215620	10	AL928551	AL928551 Mouse DNA
C 37	84.6	8.1	217353	10	AC149611	AC149611 Mus muscu
C 38	84.6	8.1	229190	10	AC127348	AC127348 Mus muscu
C 39	84.6	8.1	234888	2	AC102097	AC102097 Mus muscu
C 40	84.6	8.1	260625	2	AC096018	AC096018 Rattus no
C 41	84.6	8.1	289751	10	AC091458	AC091458 Mus muscu
C 42	84	8.0	179886	2	AC140072	AC140072 Mus muscu
C 43	84	8.0	182272	10	AC122232	AC122232 Mus muscu
C 44	84	8.0	208880	10	AC123837	AC123837 Mus muscu
C 45	84	8.0	219568	10	AL844840	AL844840 Mouse DNA

## ALIGNMENTS

RESULT 1  
AF342806 1047 bp DNA linear BCT 13-SEP-2001  
LOCUS Treponema pallidum subsp. pertenue strain CDC2 acidic repeat  
DEFINITION protein (arp) gene, complete cds.  
AF342806  
AF342806.2 GI:15617204

ACCESSION  
VERSION  
KEYWORDS  
SOURCE  
ORGANISM  
Treponema pallidum subsp. pertenue (yaws treponeme)  
Treponema pallidum subsp. pertenue  
Bacteria; Spirochaetes; Spirochaetales; Spirochaetaceae; Treponema.

REFERENCE  
AUTHORS  
TITLE  
Liu, H., and Steiner, B.

JOURNAL  
REFERENCE  
AUTHORS  
TITLE  
Unpublished  
2 (bases 1 to 1047)  
Liu, H., Steiner, B.M., and Rodas, B.

JOURNAL  
REFERENCE  
AUTHORS  
TITLE  
Unpublished  
3 (bases 1 to 1047)  
Liu, H., and Steiner, B.

JOURNAL  
TITLE  
Submitted (25-JAN-2001) National Center for Infectious Diseases,  
Centers for Disease Control and Prevention, 1600 Clifton Rd. Mail  
Stop D13, Atlanta, GA 30333, USA

REFERENCE  
AUTHORS  
TITLE  
Liu, H., Steiner, B., and Rodas, B.

JOURNAL  
TITLE  
Submitted (13-SEP-2001) National Center for Infectious Diseases,  
Centers for Disease Control and Prevention, 1600 Clifton Rd. Mail  
Stop D13, Atlanta, GA 30333, USA

REMARK  
COMMENT  
Sequence update by submitter  
On Sep 13, 2001 this sequence version replaced gi:12667498.  
Location/Qualifiers

FEATURES  
source  
1..1047  
/organism="Treponema pallidum subsp. pertenue"  
/mol\_type="genomic DNA"  
/strain="CDC2"  
/sub\_species="pertenue"  
/db\_xref="taxon:168"

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OM nucleic - nucleic search, using sw model

Run on: March 23, 2005, 10:23:14 ; Search time 3718.21 Seconds  
(without alignments)  
10718.395 Million cell updates/sec

Title: US-10-017-168-21  
Perfect score: 1047  
Sequence: 1 atgtctgtgcagcagtcagatc.....ttctgaaaagcgcatga 1047

Scoring table: IDENTITY NUC  
Gapop 10.0, Gapexc 1.0

Searched: 34239544 seqs, 19032134700 residues

Total number of hits satisfying chosen parameters: 68479088

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database :

EST: \*  
1: gb\_est1: \*  
2: gb\_est2: \*  
3: gb\_hic: \*  
4: gb\_est3: \*  
5: gb\_est4: \*  
6: gb\_est5: \*  
7: gb\_est6: \*  
8: gb\_gsa1: \*  
9: gb\_gsa2: \*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
C 1	89.6	8.6	365	9	L2644X
C 2	85.8	8.2	293	8	A2334000
C 3	83	7.9	776	9	AGS61854
C 4	81.4	7.8	709	9	AG351718
C 5	77	7.4	697	8	BY752869
C 6	76.6	7.3	514	8	B2089457
C 7	75.4	7.2	783	9	AG573654
C 8	75.4	7.0	820	9	CL836578
C 9	73.4	7.0	482	7	CV254879
C 10	73.2	7.0	752	9	AGS62801
C 11	72.8	7.0	650	8	A2337339
C 12	72.2	6.9	384	9	CNS01145
C 13	71.8	6.9	523	8	A2383375
C 14	71.4	6.9	979	6	CD328191
C 15	71.4	6.8	419	4	BG273097
C 16	70.8	6.8	1945	8	CC251395
C 17	70.6	6.7	275	7	CC546011
C 18	70.4	6.7	733	9	CC641774
C 19	70.4	6.7	852	8	B2801844
C 20	70.4	6.7	945	8	CG344918
C 21	70.4	6.7	1099	9	CL509275
C 22	70.2	6.7	617	9	CE019059
C 23	70.2	6.7	696	7	CK138139
C 24	70	6.7	834	9	AG555306

C 25	70	6.7	1197	9	AG346705	AG346705	Mus muscu
C 26	69.4	6.6	427	7	CK286024	CK286024	EST748746
C 27	69.4	6.6	1147	8	B2051981	B2051981	fnr56f09
C 28	69.2	6.6	699	6	CD493768	CD493768	CD493768
C 29	69.2	6.6	1271	9	CL492192	CL492192	SAIL_564
C 30	69	6.6	430	5	BM900946	BM900946	rc43c10.y
C 31	69	6.6	986	9	AG390365	AG390365	Mus muscu
C 32	68.6	6.6	494	7	CF609053	CF609053	GERM001.0
C 33	68.6	6.6	516	7	CF607575	CF607575	GERM001.0
C 34	68.6	6.6	583	5	BQ847872	BQ847872	QGA5016.y
C 35	68.6	6.6	1344	9	AG435591	AG435591	Mus muscu
C 36	68.4	6.5	501	7	CV094178	CV094178	FAMU_USDA
C 37	68.4	6.5	520	7	CV096855	CV096855	FAMU_USDA
C 38	68.4	6.5	552	7	CV095345	CV095345	USDA_FP.1
C 39	68.4	6.5	592	7	CV092813	CV092813	FAMU_USDA
C 40	68.4	6.5	609	7	CV099895	CV099895	FAMU_USDA
C 41	68.4	6.5	624	7	CV092434	CV092434	FAMU_USDA
C 42	68.4	6.5	647	7	CV096641	CV096641	FAMU_USDA
C 43	68.4	6.5	651	7	CV093263	CV093263	FAMU_USDA
C 44	68.4	6.5	651	7	CV097413	CV097413	FAMU_USDA
C 45	68.4	6.5	688	7	CV098193	CV098193	FAMU_USDA

#### ALIGNMENTS

RESULT 1  
LOCUS L2644X/C  
DEFINITION L2644X 365 bp DNA linear GSS 16-MAR-2000  
Leishmania major Friedlin cosmid L2644 c3hyg end-sequence, similar to U40394 U40394 Kaposi's sarcoma-associated herpes-like. . . N=755, Prob=1.8e-54; TR:P93797 P93797 PHEOPHORIN-S PRECURSOR. [0] +3. . . N=318, Prob=7.2e-37, genomic survey sequence.

ACCESSION AL160994.1 GI:7258621  
VERSION AL160994.1  
KEYWORDS GSS.  
SOURCE Leishmania major  
ORGANISM Leishmania major  
Eukaryota; Euklenozoa; Kinetoplastida; Trypanosomatidae; Leishmania.

REFERENCE 1 (bases 1 to 365)  
Ivens,A.C., Lewis,S.M., Bagherzadeh,A., Zhang,L., Chan,H.M. and Smith,D.F.  
A physical map of the Leishmania major Friedlin genome  
Genome Res. 8 (2), 135-145 (1998)  
98146435  
9477341  
2 (bases 1 to 67)  
Taylor,R.G., Huckle,E.E.J., Ivens,A.C., Rajandream,M.A. and Barrett,B.G.  
Direct Submission  
Submitted (14-MAR-2000) Leishmania major Friedlin genome sequencing project, Sanger Centre, The Wellcome Trust Genome Campus, Hinxton, Cambridge CB10 1SA, E-mail: barrett@sanger.ac.uk and alicat@sanger.ac.uk  
see http://www.ebi.ac.uk/parasites/leish.html  
Details of Leishmania sequencing at the Sanger Centre are available at http://www.sanger.ac.uk/Project/L\_majior/  
The c3hyg c3hyg primer sequence can be obtained from acc. no. U59231.

COMMENT

FEATURES  
source Location/Qualifiers  
1..365  
/organism="Leishmania major"  
/mol\_type="genomic DNA"  
/strain="Friedlin"  
/db\_xref="taxon:5664"  
/Chromosome="26"  
/clone="cosmid L2644"

ORIGIN  
Query Match 8.6%; Score 89.6; DB 9; Length 365;  
Best Local Similarity 58.7%; Pred.No. 1.5e-13;  
Matches 155; Conservative 0; Mismatches 109; Indels 0; Gaps 0;

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OM nucleic - nucleic search, using sw model

Run on: March 23, 2005, 10:23:13 ; Search time 590.643 Seconds  
(without alignments)  
10493.597 Million cell updates/sec

Title: US-10-017-168-21

Perfect score: 1047  
Sequence: 1 atgtctgtcgcgcagtcgacat.....ttctgaaaagcgcgatga 1047

Scoring table: IDENTITY\_NUC  
Gapop 10.0 , Gapext 1.0

Searched: 4390206 seqs, 2959870667 residues

Total number of hits satisfying chosen parameters: 8780412

Minimum DB seq length: 0

Maximum DB seq length: 2000000000  
Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : N\_Geneseq\_16Dec04:\*

- 1: geneseqn1980s:\*
- 2: geneseqn1990s:\*
- 3: geneseqn2000s:\*
- 4: geneseqn2001as:\*
- 5: geneseqn2001bs:\*
- 6: geneseqn2002as:\*
- 7: geneseqn2002bs:\*
- 8: geneseqn2003as:\*
- 9: geneseqn2003bs:\*
- 10: geneseqn2003cs:\*
- 11: geneseqn2003ds:\*
- 12: geneseqn2004as:\*
- 13: geneseqn2004bs:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	852.2	81.4	9410	2	AAx20603
2	693.4	66.2	699	4	AAC84648
3	642	61.3	2945	4	AAC84647
4	626.4	59.8	939	4	AAC84649
5	82.6	7.9	149158	12	ADP74211
6	82.6	7.9	149158	12	ADP74211
7	82.6	7.9	149261	12	ADP74212
8	82.6	7.9	149261	12	ADP74212
9	82.6	7.9	150071	12	ADP74216
10	82.6	7.9	150071	12	ADP74216
11	82.6	7.9	150223	12	ADP74201
12	82.6	7.9	150223	12	ADP74201
13	80.6	7.7	110000	8	ABX16390.2
14	78.2	7.5	628	12	ACH89664
15	78.2	7.5	3012	12	ADN12155
16	77.6	7.4	3127	12	ADN12154
17	77.4	7.4	114793	4	AAD08215
18	75.8	7.2	7720	3	AAA53800
19	75.8	7.2	8298	4	AAK72613
20	75	7.2	16442	2	AAx83006

21	73.4	7.0	795	2	AAV55830	AAV55830 FIGA Inse
22	73.4	7.0	799	2	AAV55831	AAV55831 Nucleotid
23	73.4	7.0	1925	2	AAx90924	AAx90924 Eptstein B
24	73.4	7.0	1926	3	AAx50254	AAx50254 Eptstein B
25	73.4	7.0	1926	4	AAx82902	AAx82902 EBV telhe
26	73.4	7.0	1926	10	AAx65580	AAx65580 Human her
27	73.4	7.0	2580	3	AAx75454	AAx75454 Nucleotid
28	73.4	7.0	2580	6	AAx64275	AAx64275 Eptstein-B
29	73.4	7.0	5452	2	AAx90923	AAx90923 Acti--sens
30	73.4	7.0	8705	2	AAx23778	AAx23778 Vector DS
31	73.4	7.0	8705	12	ADM10659	ADM10659 Expressio
32	73.4	7.0	9482	12	ADP64415	ADP64415 Vector PC
33	73.4	7.0	9600	2	AAV21683	AAV21683 Vector pl
34	73.4	7.0	10285	6	ABx71027	ABx71027 PCBP-Xa-F
35	73.4	7.0	10285	6	ABx66453	ABx66453 Plasmid p
36	73.4	7.0	10330	12	ADL67154	ADL67154 Plasmid p
37	73.4	7.0	10380	2	AAx22248	AAx22248 Nucleotid
38	73.4	7.0	10477	12	ADL67152	ADL67152 Plasmid p
39	73.4	7.0	10516	12	ADL67150	ADL67150 Plasmid p
40	73.4	7.0	10561	12	ADL67148	ADL67148 Plasmid p
41	73.4	7.0	10596	2	AAQ51731	AAQ51731 Plasmid p
42	73.4	7.0	10596	2	AAx15650	AAx15650 Nucleotid
43	73.4	7.0	10596	2	AAx40348	AAx40348 Plasmid p
44	73.4	7.0	10615	12	ADL67175	ADL67175 Plasmid p
45	73.4	7.0	10774	12	ADL67153	ADL67153 Plasmid p

## ALIGNMENTS

RESULT 1	AAx20603	standard; DNA; 9410 BP.
ID	AAx20603;	
XX	AAx20603;	
AC	AAx20603;	
XX	AAx20603;	
DT	05-MAY-1999 (first entry)	
XX	Polynucleotide sequence from the genome of Treponema pallidum.	
DE	Treponema pallidum infection; syphilis; Borrelia infection; animal;	
XX	enzyme production; de.	
KW	Treponema pallidum.	
XX	MO9859034-A2.	
OS	30-DEC-1998.	
XX	23-JUN-1998; 98WO-US013041.	
XX	24-JUN-1997; 97US-0050667P.	
XX	(HUMA-) HUMAN GENOME SCI INC.	
PA	Fraser CM;	
PI	WPI; 1999-081273/07.	
DR	New isolated Treponema pallidum nucleic acids - used to develop products	
PT	for the detection, diagnosis, characterization, prevention and therapy of	
PT	T. pallidum infections, particularly syphilis.	
XX	Claim 1; Page 693-698; 1150pp; English.	
PS	AAx20500-21243 represent polynucleotide sequences from the genome of	
CC	Treponema pallidum. The sequences can be used for detection, diagnosis,	
CC	characterisation, prevention and therapy for T. pallidum infections,	
CC	particularly syphilis. They can also be used for detecting diseases	
CC	related to Borrelia infections in animals, and for the production of	
CC	biosynthetic products such as enzymes	
XX	Sequence 9410 BP; 1934 A; 2470 C; 2830 G; 2153 T; 0 U; 23 Other;	